

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claim 1. (Previously Presented) A port acceleration apparatus for a fibre channel arbitrated loop, the fibre channel arbitrated loop coupling a plurality of disks, the apparatus comprising:

at least one fibre channel input configured to receive data from the fibre channel arbitrated loop;

at least one fibre channel output configured to send data to the fibre channel arbitrated loop;

at least one device input configured to receive data from at least one of the disks;

at least one device output configured to send data to the at least one of the disks;

at least one controller configured to process at least one fibre channel primitive received on the at least one fibre channel input to generate, based on the at least one fibre channel primitive, a plurality of states comprising an indication of what is routed to the at least one fibre channel output and what is routed to the at least one device output;

a first multiplexer configured to route, in accordance with the plurality of states, data from the at least one fibre channel input or a current fill word to the at least one device output; and

a second multiplexer configured to route, in accordance with the plurality of states, data from the at least one fibre channel input, data from the at least one device input, or data from an arbitration generator to the at least one fibre channel output.

Claim 2. (Original) The apparatus of claim 1 wherein the at least one fibre channel primitive includes at least one of an ARB primitive and an OPN primitive.

Claim 3. (Cancelled)

Claim 4. (Cancelled)

Claim 5. (Cancelled)

Claim 6. (Cancelled)

Claim 7. (Original) The apparatus of claim 1 wherein the apparatus comprises an integrated circuit.

Claim 8. (Cancelled)

Claim 9. (Previously Presented) A method for accelerating traffic flow in a fibre channel arbitrated loop that connects a plurality of devices including at least one disk, the method comprising:

- receiving, from the fibre channel arbitrated loop, data comprising at least one fibre channel primitive;

- receiving, from the at least one disk, data comprising at least one fibre channel primitive;

- processing the at least one fibre channel primitives to determine a plurality of states indicative of whether to route data received from the fibre channel arbitrated loop to the at least one disk or to the fibre channel arbitrated loop;

- routing, in accordance with the state determination, the data received from the fibre channel arbitrated loop;

- routing, in accordance with the state determination, the data received from the at least one disk;

- routing, in accordance with the state determination, a current fill word to the at least one disk; and

- routing, in accordance with the state determination, data from an arbitration generator to the fibre channel arbitrated loop.

Claim 10. (Original) The method of claim 9 wherein the at least one fibre channel primitive includes at least one of an ARB primitive and an OPN primitive.

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Claim 11. (Previously Presented) The method of claim 9 further comprising routing, in accordance with the state determination, data received from the at least one disk to the fibre channel arbitrated loop.

Claim 12. (Cancelled)

Claim 13. (Cancelled)

Claim 14. (Previously Presented) The method of claim 9 further comprising routing to the at least one disk, in accordance with the determination, data received from the fibre channel arbitrated loop or at least one CFW primitive.

Claim 15. (Cancelled)

Claim 16. (Cancelled)

Claim 17. (Cancelled)

Claim 18. (Cancelled)

Claim 19. (Cancelled)

Claim 20. (Cancelled)

Claim 21. (Cancelled)

Claim 22. (Cancelled)

Claim 23. (Cancelled)

Claim 24. (Cancelled)

Claim 25. (Cancelled)

Claim 26. (Cancelled)

Claim 27. (Previously Presented) The method of claim 9 wherein the processing comprises determining whether the at least one device is authorized to participate in a conversation currently associated with the data loop.

Claim 28. (Previously Presented) The method of claim 9 wherein the processing comprises determining whether the at least one device has successfully arbitrated to gain access to the data loop or is communicating with another device that has successfully arbitrated to gain access to the data loop.

Claim 29. (Previously Presented) The method of claim 9 further comprising routing, in accordance with the state determination, data from the at least one disk to the fibre channel arbitrated loop.

Claim 30. (Cancelled)

Claim 31. (Cancelled)

Claim 32. (Previously Presented) The method of claim 9 further comprising the step of routing to the at least one device, in accordance with the state determination, data from the fibre channel arbitrated loop or other data.

Claim 33. (Cancelled)

Claim 34. (Cancelled)

Claim 35. (Cancelled)

Claim 36. (Cancelled)

Claim 37. (Original) The apparatus of claim 1, wherein the plurality of states comprises:
a first state where the current fill word is routed to the at least one device output and the data from the at least one fibre channel input is routed to the at least one fibre channel output;
a second state where the current fill word is routed to the at least one device output and the data from an arbitration generator is routed to the at least one fibre channel output; and
a third state where at the data from the least one fibre channel input is routed to the at least one device output and the data from the at least one device input is routed to the at least one fibre channel output.

Claim 38. (Original) The apparatus of claim 1, wherein the second multiplexer routes data from the at least one fibre channel input to the at least one fibre channel output with delay less than three fibre channel words.

Claim 39. (Original) The apparatus of claim 1, wherein the arbitration generator arbitrates fibre channel arbitrated loop access for the at least one disk.